

Consumers' Guide

VOL. III, No. 8
APRIL 20, 1936



Salute to the "Wonder Bean"

Consumers' Queries and Comments

"Rain falling on overworked fields, washing through gullies, sweeping down streams and rivers, carrying rich soil out to sea, is no respecter of boundary lines or of economic classes. It is as much the concern of a consumer one thousand miles away as it is of the farmer on whose land it fell."

H.R. Tolley
Acting Administrator, AAA

C MASSACHUSETTS' alert Division of Markets, reading the CONSUMERS' GUIDE report on consumer services of New Jersey's Bureau of Markets in our February 10 issue, writes us of its pioneering work in the field of consumer information looking toward better consumer-producer relationship.

BEST BUYS in seasonal or new products and other tips on ways to meet everyday food marketing problems have been published almost continuously since June 1920 in this Division's "Boston Weekly Retail Price Report."

"SINCE 1925", an officer writes, "this Division has used the radio fairly constantly for the dissemination of consumer food marketing information. In the beginning, time on the air

was provided through the cooperation of the Massachusetts State Federation of Women's Clubs and a radio station. During the last few years, with the increasing number of consumer radio periods on various stations, the Division has helped by supplying data as well as speakers . . . Special consumer newspaper stories have been prepared since 1921, and for the last 2 years we have issued a regular weekly market news release under the title 'Fresh Food Facts.'"

"CHIEF AIM of this consumer information work has been to help the consumer in her marketing practices and encourage her understanding of the vast business of food production and distribution, but the Division has also striven to arouse in Massachusetts farmer-producer groups recognition of consumer needs and requirements, fragmentary as is our knowledge of them. It is said that it is easier for business to understand consumers than it is for consumers to understand business."

WE would like to add to this record of informational work for consumers by local and State governments. What is being done in your State or city?

C SIGNS that consumers should find it increasingly easier to get graded canned goods in grocery stores are reaching the Department of Agriculture. More labels bearing grade designations than ever before are coming to official attention this year, they report. The biggest user of grade labels, distributing all over the country, plans to

double the number of such labels this year over last. Firms which used to be content with descriptive terms are joining in the procession to the more definite "Grade A", "Grade B", and "Grade C" terms employed in the United States Department of Agriculture grades for canned goods. . . . Guessing at consumer reaction to trade practices is one of the most difficult jobs manufacturers have to do. If you find grade designations a help in selecting your canned goods, why not so write to the distributor or packer who provided you with this yardstick of value? If you want graded canned goods and can't find them, ask your grocer when he will be stocking them.

C "TELL us", asks a New Jersey consumer, "if oranges that are waxed are bad for us." No, they are not. Waxing is not a very common method used by packers to treat oranges so as to prevent decay from blue mold developing on the route to market. We described blue mold in our article on "Watchwords on Waste", in the December 15, 1935, CONSUMERS' GUIDE. Waxing has no effect on the internal quality of the orange, unless to slow down the rate of evaporation which would normally take place and thereby to maintain the juiciness of the fruit. Washing oranges in a borax solution is a much more usual kind of skin treatment to accomplish the same protection against decay. A housewife who wants to make marmalade with skins which have been either waxed or washed in a borax solution can do so safely if the oranges have been thoroughly washed before skinning.

Salute to the "Wonder Bean"



HOU TSI, one of the gods of agriculture, according to Chinese legend, wishing to give humans a superior food, planted a soybean seed. His seed prospered and from its increase grew great crops which for more than a hundred generations have supplied a valuable source of tissue-building-and-repairing food to people who have never known the taste of cow's milk and seldom tasted meat.

CENTURIES before there were any written records, soybeans were an essential food of Orientals. Ancient Chinese books recount more than 400 ways of preparing them. Decades before we turned curious eyes on them, soybeans were used for important industrial products. To Occidentals, they now come as something like a Twentieth Century wonder.

RICHEST of all vegetables in protein, soybeans are given a white mark by nutritionists for their potential aid to consumers with small budgets who want to keep their family diets in balance.

ECONOMISTS point out that the use of soybeans in industry, laudable as it is, does not offer promise of solving the farmers' surplus problem in the immediate future. Although the 1935 crop of 5 million acres was the largest on record, it is estimated that the product of not more than 1 million acres is going into nonfood commercial uses. This use of soybeans in all industry makes up for less than 3 percent of the acreage which formerly produced feed for horses and mules, displaced by the automobile industry alone.

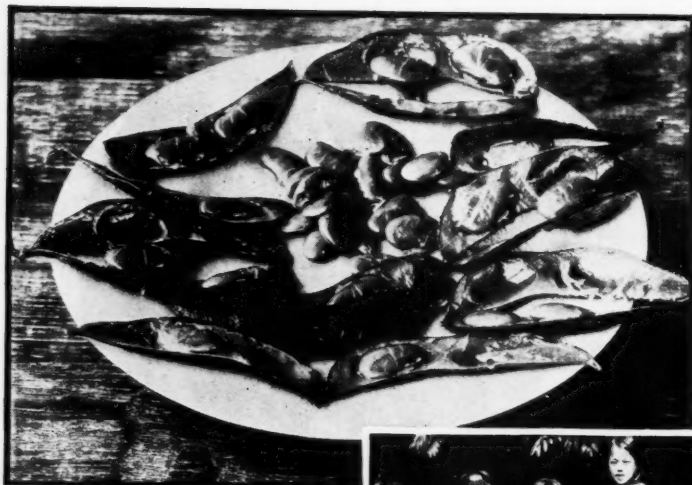
Human food, forage crop, factory raw material, and soil builder...these are the attributes of SOYBEANS, one of nature's most versatile crops.

TO INDUSTRY soybeans are even more of a wonder bean since science has revealed the dozens of ways in which they can be used as factory raw material.

FARMERS, struggling with feed problems for their livestock, with soil impoverished by other crops, are learning the great value of this protein food for animals and the soil-building qualities of the plant in restoring nitrogen to exhausted earth.

WITHIN the century, from an almost unknown plant, American farmers have made soybeans a major crop, and production, in response to food, factory, and farm demand, is now expanding faster than with any other agricultural crop.

MORE VERSATILE a bean has never been known to science. From the seed comes meal and oil. Out of the meal can be made flour for use in infant foods, macaroni, breakfast foods, bread, and cakes. Soybean oil meal provides feeds and fertilizer for farm use. Out of the oil can be made soap, enamels, varnishes, paints, salad oils, cooking fats, linoleum, printing inks, and lubricating oils.



Green soybeans, boiled in water flavored with soy sauce or salt, are a favorite with Oriental people, young and old.



NOR does the list stop there. Lecithin—useful to bakers and confectioners—is still another valued byproduct. Celluloid, and even glycerine, can be made from soybean oil. From the dried beans come soy sauce, soups, sprouts, roasted beans, a vegetable milk in liquid, powdered, or curd form. To these and other uses science is adding constantly.

SO MULTITUDINOUS are the uses of these beans, the wonder is that they had not long ago become an important agricultural crop in this country. That development had to wait on science. Only certain types will grow in certain soils and climates. Research into these type and soil relationships takes time and money—rare resources of the average farmer.

A NEW ENGLAND clipper, back from trading along the China coast, brought the first soybeans to this country. That was in 1804. Then they were a botanical curiosity, and fashionable houses grew the beans in their gardens. From gardens to a national crop has taken over a century and a quarter.

UNION soldiers in the Civil War, lacking many of the more common foods, were given soybean "coffee", but aside from that brief emergence into the front lines, nothing much was heard of soybeans from their arrival in this country until 1890 when the Government began experimenting with them. These early Government experiments showed soybeans were a fine soil builder when plowed under, and made fine forage for livestock. Farmers were urged to plant more for these purposes.

ANOTHER WAR, IN 1915, encouraged explorations into the use of soybean oil. A shortage of cottonseed in the South coincided with a surplus of soybean seed in North Carolina. Mills dependent on cottonseed oil turned to soybeans for some of their supplies. War conditions which forced large exports of meat and boosted

food prices provoked some more researches by the Department of Agriculture into new cheap sources of proteins for human consumption.

SLOWLY and gradually over the years, soybeans have won through to their present recognition as a valuable aid to good farming, a commercially worth-while crop, a useful human food, and a source of raw materials for industry. To State experiment stations, together with experts of the Department of Agriculture, must go most of the credit.

PROTECTIVE foods, modern nutritionists have drilled into Occidental minds, are a necessary part of any diet if bodies are to attain their greatest growth and maintain their maximum strength. Daily calory requirements of the average American are around 3,000. At least half of these needed 3,000 calories, according to one eminent authority, should be provided by protective foods.

WESTERN world consumers know fruits, vegetables, eggs, and dairy products are the protective foods par excellence. Soybeans now

come to claim rank with these foods because they are rich in high quality protein, rich in minerals, and rich in vitamins. Often they have the additional virtue of being cheaper sources of some of these food values which ordinarily come high.

WITHOUT benefit of modern nutritional knowledge, millions of consumers in the Far East, forced by economic necessity to an almost exclusively vegetable diet, have compensated for a shortage on animal foods by the consumption of soybeans. Compensation has come in part because soybeans furnish a protein equal in quality to that found in meat, milk, and eggs.

NO TWO foods are exactly identical in their protein, which is a composite of substances, called "amino acids", containing nitrogen. Proteins in foods vary in the kind and amount of the amino acids they contain. To build bodies and keep them in working order they must have the kind of proteins that are efficient or "complete." Almonds, eggs, lean meat, milk, all have complete proteins. So do soybeans which sometimes, as in the case of many eastern people, are the only source of efficient protein within pocketbook reach.

KEEPING mineral-rich foods in the diet and keeping the diet within budget limits, too, challenge the best of planners. Minerals are among the major necessities of a balanced diet, yet many of the foods rich in them are expensive. Soybean flour, on the other hand, is both a rich and a cheap source of such minerals as calcium and iron.

Government experiments on a certain kind of soil showed that when soybeans were cut for hay and roots were left in the ground, the yield of wheat per acre was 3.5 bushels greater than when no soybeans were grown. When the entire soybean crop was turned under for fertilizing the soil, the yield of wheat was 6.6 bushels an acre greater than when the soybeans were cut for hay.

BUILDING bones without calcium in the diet is as difficult as making glass without sand. Calcium needs are imperative if bones are to grow straight and teeth strong. Soybean flour scores again, this time as a cheap source of calcium.

LECITHIN, a phosphorus-like substance found in vital organs and nervous tissue of humans, is still another constituent of soybeans. Important as a transporter of fat around the body and a builder of tissues instead of fat deposits, lecithin has commercial uses, too. Bakers use it to improve shortening effects. Confectioners add a little to candies to make them glossier, or to gumdrops to keep them from hardening. Egg yolk used to be the chief commercial source of lecithin until soybeans were found to be cheaper. One pound of soybean flour contains as much lecithin as 4 to 6 eggs.

VITAMINS have not passed by this extraordinary bean. Tests show that it is a probable source of Vitamin A (the good-general-condition vitamin); a good source of B (the "appetite" vitamin); and G (the "anti-pellagra" vitamin). Bean sprouts can claim C, the scurvy-fighting vitamin. Flour made from the beans with only light heat treatment retains their Vitamins A and B. Solvent-extracted flour loses practically all Vitamin A which is found in the oil instead of the flour.

NEGATIVE virtues are sometimes the most commendable for consumers who must guard against certain nutrients in food. Soybeans, unlike most beans, are shy on starch. For this reason they are recognized as a good food for people needing a low starch diet. For some years food companies have had on the market forms of soybean flour prepared for such special diets.

OTHER BEANS take honors in carbohydrate



supremacy, and many foods, such as white flour, cornmeal, macaroni, bread, and sugar, are better sources of these energy-giving nutrients than is soybean flour. Energy-giving quality in food, however, comes not only from carbohydrates but also from fat and protein. Since soybeans rate grade A in these two, soybean flour as a source of energy is no laggard.

LITTLE wonder, then, with such qualities to commend them, that food experts look upon soybeans as a useful addition to the diet of families in areas where animal products are scarce or where pocketbooks are slim, and particularly of families on relief who must stretch their dollars farthest.

BLOCKING their more extensive use as a green vegetable has been the limited development, until recently, of varieties suitable for consumption in this form. Between types of soybeans there is as much difference as between types of corn; some are good for eating as a green vegetable, some not so good. A few years ago the Department of Agriculture sent its experts to the Far East to bring back seeds of green vegetable varieties. In the past 2 years experiments on these seeds have been going ahead with success, and farmers are planting more and more of them each year.

NUTTIER, richer in flavor than tender lima beans, soybeans would probably rate highest in popular favor in the green, rather than the dried, form. Their pods are tough and the beans are difficult to shell, but if the pods are first boiled for 3 minutes they will shell readily. The oriental way, more piquant, is to boil them in water flavored with soy sauce or salt, and then eat the bean directly from the pod. Some beginning has been made in canning the green beans, and those who have tried it praise soybean salad.

GREEN soybeans sometimes can step in and fill a breach when other fresh vegetables fail. Because of different maturing dates, soybeans can spread the green vegetable season for farm families which cannot afford fresh vege-



Soybean seeds must be treated, before planting, with bacteria to stimulate the plant to take nitrogen from the air. The greater its capacity to take nitrogen from the air, the greater the protein content of the plant and the greater its capacity to leave nitrogen in the soil.

tables shipped from distant places. Because soybeans resist drought better than many other greens, they are a good insurance for farm families where that weather misfortune may descend.

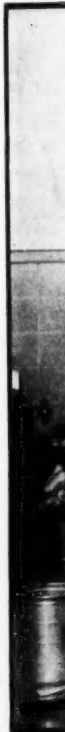
DRIED bean uses read like a bill of fare, from soup to nuts, though of course no nutritionally wise planner would include only one food in even the simplest and cheapest diet. Between the soup and nuts, however, could come baked soybeans, flavored perhaps with soy sauce or Worcestershire sauce which now-a-days is frequently a soybean product. Next might come a salad of bean sprouts, either cooked or raw, and dressed with a soybean salad oil (sole exception to the dried bean menu). Salad might be touched off with a bit of soybean curd, also a dried bean product. Candy made with the roasted beans could even top off the meal, with a soybean beverage or even with soybean milk.

"MILKING" dried soybeans is an achievement learned from the peasants of the Far East. Compared with cow's milk, soybean milk contains most of the same food substances but, pint for pint, only one-sixth as much calcium, less fat, and no milk sugar. Its protein, though more "efficient" than any other vegetable protein, is less in quantity and not equal in quality to proteins in animal milk.

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FLOUR, so far, is the major food use of soybeans. An unpleasant beany taste in soybean flour used to weigh against its more extensive consumption. Now science has removed that blemish, and made possible refinement of the flour so that it will keep fresh and sweet. Wheat flour must always be combined with it to give the bread, cakes, and cookies the texture desired.

GREEN and dried seed uses only begin the amazing list of character roles which soybeans can play in human lives. Two other big parts come when the oil is extracted and oil meal is left to work upon. Both the oil and the meal can be used for human food and industrial uses.

FROM SALAD OIL to doormats, soybean oil is capable of supplying a hundred needs, only a few of which are listed on page 3. Perhaps its greatest demand will come from industry which is finding the oil and its derivatives adaptable for many purposes. Soybeans are credited even with sinking ships in the World War when glycerine, obtained from soy soap manufacture, was redistilled and made into high explosives. From meal come glue, paper sizing, and plastics. One important automobile firm

has made notable experiments with soybean accessories.

TOPPING all their variegated uses, soybeans have in the past and probably will continue for some time to have their major usefulness on the farm. More farmers are coming to learn the value of soybean meal for their livestock and poultry, and for fertilizer, soybean hay and soybean pasture for livestock and poultry, and finally soybean plants, plowed under, for soil improvement.

HOW GOOD a job is done by soybeans in improving the soil depends on the inoculation of the plants, how much of the crop is returned to the soil, and the effect of the roots on the mechanical condition of the soil.

TO DO their best work as a soil builder soybeans must be plowed under. When the AAA classified crops for the 1936 soil conservation program, it put soybeans under the "soil-building" class, for which special payments are to be made, only when they are turned under for green manure. When the beans are harvested for grain—so that the seeds can be used for human food or for industrial purposes, or for hay—for animal food—then soybeans are classed as a "soil-depleting" crop, with two exceptions. In the South, where farmers more frequently plant soybeans between rows of other crops or graze them off, soybeans are a "soil-depleting" crop only if they are harvested for crushing. In other cases in the South and in some East-Central States they can be counted "soil-conserving" or "soil-building", depending upon the handling of the crop.

PRODUCTION of soybeans has been leaping ahead on the farms of this country. Fifteen years ago it

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One method of making soybean milk, tested in the laboratories of the Bureau of Home Economics, is to wash the beans and soak overnight; remove the skins and grind the beans very fine; put ground beans in a cheesecloth bag, in a bowl of lukewarm water, using 3 quarts to each pound of dried beans; work with the hands for 5 to 10 minutes; wring the bag of pulp until dry; boil the milk on a low fire for 30 minutes, stirring frequently; add sugar and salt to taste; keep in a cold place.



COLOR for Sale

How Government progress toward protecting consumers from poisons is wiping out some old prejudices against food colors.

GENERATIONS that grew up to dread the bright amazing green which peas acquire from contact with copper salts still feel suspicious of artificially colored foods. Their suspicions grew out of two valid reasons.

MOTIVES of food manufacturers who originally used food colors laid them open to doubt. They acted on the discovery that inferior food could be colored to look like the best of its field, and that products which were actually past the edible stage could be given a false glow of health and youth.

MATERIALS used for food colors caused the second basis for doubt. Those were the days when the brilliance was brought about too often by highly poisonous colors.

NOWADAYS the use of artificial coloring does not necessarily condemn either the food or the intention of the manufacturer who produces it. But the motive behind its use is still significant. Whether using these colors is regarded by Government guardians of food integrity as illegal, as legal when correctly labeled, or as perfectly legitimate without



label declaration, depends not only on whether the colors are harmless but also upon the reason why they were used.

DECORATION comes under the classification of an honest use for harmless artificial colors, subject to no restriction. Candies and cake icing may come in any tint a confectioner can devise from safe materials, and they need not be labeled as artificially colored unless the color is added to certain fruit type candies so as to deceive as to fruit content. The principle underlying this practice is that consumers are getting what they expect of the food. The colors neither lead to false expectations, nor represent the addition of an ingredient they do not ordinarily anticipate.

ADDITION of artificial color where it is not expected normally is subject to more restriction. Tomato paste, for instance, is normally expected by the purchaser to have only the natural coloring matter of the tomato. The addition of artificial color to make a more intensely colored product, therefore, under Food and Drug regulations, requires label declaration of the added dye.

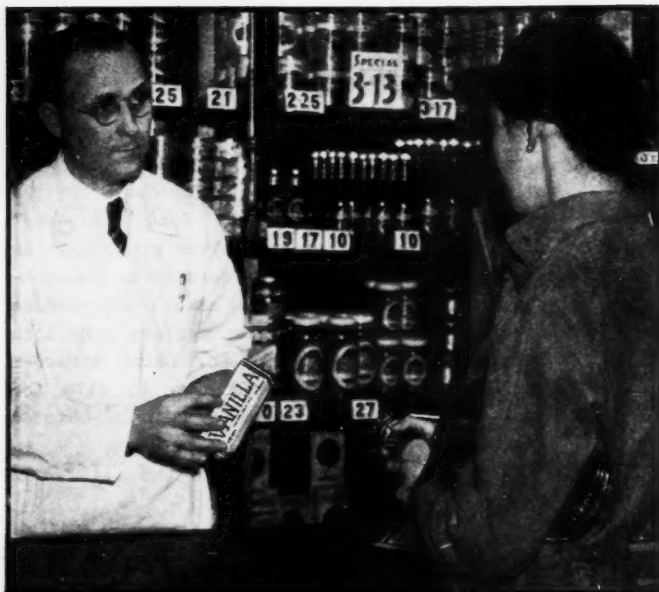
IMITATING a genuine article is possible for synthetic substitutes by means of artificial color. In that case the word "Imitation" along with the statement "artificially colored" goes one step further to prevent deception. Because imitation vanilla extract would look like water without the caramel (burnt sugar) color, the honestly labeled bottle of "Imitation Vanilla" flavor is a common sight on the grocer's shelves.

EXCEPTION to this rule was made by a special statute passed by Congress to allow butter and cheese to be artificially colored yellow without being so labeled, but heavily taxing the sale of colored margarine regardless of its label.

INFERIORITY or damage concealed by color is illegal. Thus if green tomatoes, instead of ripe ones, were made into tomato paste and the paste were colored with a red dye to look like tomato paste from ripe tomatoes, that would constitute concealment of inferiority and the offense could not be corrected by declaring the artificial color on the label. Food enforcement officials would still charge the product to be adulterated. Always the officers are on the lookout for the yellow color which makes plain noodles look like egg noodles, makes eggless cake look like proper egg-made cake, or helps macaroni actually made of cheaper flours to give the impression that it is made of the rich-colored "semolina."

Most of the millions of bottles of "pop" sold in America each year go to children. Pertinent facts about the contents are on the crown caps of the bottles.





Look on the label when you buy vanilla to see if it is "Pure Vanilla Extract" or "Imitation Vanilla" flavor. Notice that your bottle of cherries is not labeled "Maraschino" but tells what it really holds.

POISON colors are of course entirely illegal. If the authorities can prove that an artificial color in any food moving in interstate commerce has been used in sufficient quantity so that the food may hurt the health of anyone eating it, the manufacturers are guilty of a punishable crime.

CHOICE open to manufacturers used to be only between mineral pigments and vegetable colors. Of the minerals, the few that worked well were likely to be poisonous. Vegetable dyes are generally harmless, and still in use, but as colors they are not so acceptable.

COAL-TAR DYES, next on the scene, made a prettier showing. But dyes starting from the same coal derivative can be deadly poison or perfectly safe, depending on the mysterious laws of chemical formation. So the first job waiting when the Department of Agriculture took over the regulation of coal-tar dyes 30 years ago was to determine which was which.

SEVEN safe colors went on the "permitted" list after thorough investigation of coal-tar dyes. Since then, 8 other shades have made

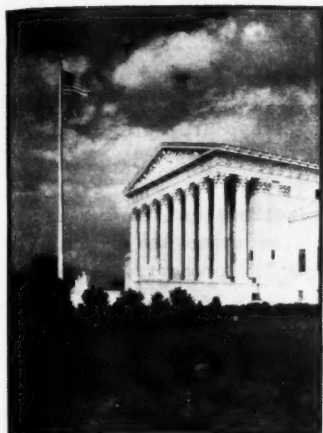
the grade, giving 15 in all: 4 shades of red, 1 shade of orange, 5 yellows, 3 greens, and 2 blues. (Strictly speaking, the name "coal-tar" dyes no longer applies accurately, since the process of making the dye now skips the coal-tar stage, deriving the dye by a different line direct from the mutual ancestor of both coal tar and the dye—coal itself. But the name "coal-tar dye" still holds good in general use.)

ASSURANCE of complete safety is offered to consumers by manufacturers who take advantage of the system of Government certification. These manufacturers send in samples of each batch of dye for examination by the chemists of the Food and Drug Administration. If the dye meets the rigid legal requirements of purity, the manufacturers receive lot numbers to go on the label of the dye. They may then sell that lot of color as "certified color" and any food in which it is used may be labeled as containing certified color.

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Easter egg dyes are now safe for young experimenters in taste.





The new home in Washington of the Supreme Court of the United States.

Consumer-Farmer Briefs from Washington

will be published when available in the CONSUMERS' GUIDE.

SURPLUSES of oranges in lush years, and freezing weather which leaves a crop unfit for market as fresh fruit, intermittently have been serious problems of orange growers for years. They represent, too, waste for consumers who need a larger quota of this Vitamin-C-rich fruit. Now comes the possibility of easing those problems for growers and increasing the availability of Vitamin C to consumers.

A NEW process for canning of orange juice which retains much of the "bite" of the fresh fruit has been developed by the Government's Citrus Products Laboratory at Winter Haven, Florida, under the direction of the Bureau of Chemistry and Soils of the Department of Agriculture. This process, now in use in California and Florida, is expected to make it possible to prevent losses to growers which have occurred from surpluses and freezing weather.

LAUNCHING a new type of product raises other questions. Growers want to know whether the marketing of orange juice will cut into their market for fresh fruit or add to their income. Processors want to know how widely consumers will accept factory-processed orange juice and add this to their present consumption of the fresh fruit.

A CITRUS consumption survey by the Consumers' Counsel of the AAA may answer some of these questions. This survey is inquiring into consumer habits and preferences in two large cities in regard to fresh and canned citrus fruit, and into methods of distribution of those products. Summary of the results of the survey

CANNED orange juice has been slow to develop because of the difficulty in finding a way to preserve the fresh fruit flavor. The Government laboratory experts think they have solved this difficulty by "flash pasteurizing" the juice—pushing the temperature to a high point for a few seconds only—and by removing the air before pasteurization, which preserves both flavor and Vitamin C. Like boiled water, pasteurized orange juice may have a slightly flat taste because the air has been driven out. The original tang may be restored by pouring the juice from one container to another six or eight times before serving.

"TREE-RIPENED" oranges, incidentally—we are asked so frequently about this kind of orange by consumers—is a misleading expression. The term implies that there are other methods of ripening, but citrus fruit is ripened on the tree if it is ripened at all. There is no other known method of bringing about maturity. There are methods of bringing about an appearance of maturity, such as treatment with ethylene gas or by dyeing the skin. Both methods, when applied to immature fruit, shipped in interstate commerce, are illegal. See the CONSUMERS' GUIDE, December 16, 1935.

CONSUMERS in Canada are going to have their purchase of canned goods still further simplified as a result of a new ruling on uniform can sizes recently announced by their Department of Agriculture.

APPROVAL of labels on off-size cans of fruits and vegetables will be refused by this Department until a further study of standardized containers has been made. Stocks already packed and prepared for shipment are not subject to this ruling, but can manufacturers are advised not to lay in new supplies of nonstandard

containers until the Department has revised its present list of container sizes.

PRESENT approved standard sizes are: 8 ounces; No. 1 regular; No. 1 flat special; No. 1 tall; No. 2 squat; No. 2 regular; No. 2½ flat; No. 2½ regular; No. 3 regular; No. 3B (for canned corn on the cob); and No. 10 regular. Use of these sizes heretofore has not been obligatory, but recommended. Cannery could use nonstandard containers provided they indicated the net weights on the label of the can.

NO restriction applies in the United States on the number of different sizes which may be used in packing any fruit or vegetable, but labels of cans moving in interstate commerce, under the Food and Drug Act, must carry the net contents in pounds and ounces avoirdupois. This freedom to use any size of can has resulted in the marketing of a wide variety of sizes, which makes for consumer confusion.

DISTINGUISHING, for instance, between No. 2 and No. 303 cans confounds the most observant household buyer. Unless you put them side by side, your eye will hardly be able to take in the difference. Yet No. 303 holds between 3 and 4 ounces less than No. 2. If you buy three No. 2 cans of tomatoes for 20 cents, you pay 5.6 cents per pound for the food. But if the cans turn out to be No. 303 cans, at the same price for three, you pay 6.7 cents per pound. Put another way, for 20 cents you are getting 9 ounces less in No. 303 than in No. 2 cans. If it were corn, which is heavier than tomatoes you would get 12 ounces less for your 20 cents.

FEDERAL Government agencies have no power to prevent such consumer confusion. Some years ago, however, the Department of Commerce attempted to get agreement among cannery voluntarily to limit the number of can sizes as an economy measure. Recommendations for simplification were not adopted.

STEADYING the flow to market of certain California fresh fruits, through a marketing agreement between shippers and the Secretary of Agriculture, so as to gain for growers a larger share of consumers' dollars, is probably going to be attempted again this year, as it

was last. Tentative approval of the plan has been made by the Secretary. Shippers are now considering the proposal which had already been discussed at a public hearing at Sacramento. The fruits to be covered are pears, plums, Elberta peaches, apricots, and cherries.

FARMERS sometimes get no returns at all when their supplies swamp the market, and often they do not profit proportionately when scarcity compels consumers to pay a high price. Marketing agreements have been used since 1933 under the AAA in an attempt to avoid alternating gluts and shortages of the perishable farm products on the market.

DEVICES for preventing markets from becoming glutted, under this agreement proposed for California fresh fruits, include: (1) limiting shipments of poorer grades and sizes when necessary; (2) closing down on shipments entirely for short periods until consumers' demand catches up with supplies; (3) controlling shipments from concentration points by allotments to shippers.

ADMINISTRATION of the program would be in the hands of a control committee of growers and shippers. Successful operation of the program is expected to bring benefits to about 12,000 growers.

SOME home bread makers have asked us what the addition of malt does to bread. Bakers use malt because it turns some of the starch in the flour into sugar for yeast to feed upon, so that the volume of the bread is greater than it would be without malt. Taste is affected little, if at all, by the addition of malt. Bakers' malt is carefully made so that it will have the correct action. Home bread makers who want to experiment will find that malt is best used in the ratio of ½ ounce to 12½ pounds of flour, mixed first with the wet ingredients. Too much malt may make the dough sticky.

DON'T forget—if your town is planning community canning of surplus fruits and vegetables this summer for relief distribution—the useful bulletin of the Bureau of Home Economics, "Community Canning Centers", which can be obtained free from that Bureau. Detailed directions are given on arrangement, equipment, methods, yield of canned products, and budgets.

A family of 4* will have an



Adequate Diet at minimum cost
if they get these foods in these amounts each week.

Bread,
Cereals,
Baked
goods. } 15¼
lbs.

Milk 17 qts.
or correspond-
ing quantities
of canned or
dried milk
or cheese.

Potatoes } 11¼ lbs.
Sweet " }
Tomatoes }
(fresh or } 4 lbs.
canned) or }
citrus }
fruits. }

Leafy, green
and yellow } 7½ lbs.
vegetables. }

Dried beans,
peas, nuts, } 2 lbs.
and peanut }
butter. }

Dried fruits } 1½ lbs.
Other fruits }
and vege- } 7¼ lbs.
tables. }

Lean meat, } 4¼ lbs.
Fish }
Poultry. }
Eggs -- 15

Fats - 3½ lbs.
Sugars - 3½ lbs.

Fifth of a new series of adequate diets at minimum cost for families of varying sizes and ages, based on studies of the Bureau of Home Economics, Department of Agriculture.

*Two moderately active adults, a girl 12 and a boy 9.

Consumer-owned Franklin Cooperative Creamery in Minneapolis has set up in its plant this laboratory to test all milk for butterfat and solids-not-fat.



How do your Dairy Products Compare?

A Guide to Standards set by each State for constituents in dairy products.

DRINKING milk and eating cheese may seem like the same admirable habits no matter where you practice them. Yet crossing a State line may change the food value in your milk. Even the constituents of the wedge of cheese with your apple pie are subject to regulations varying with the State where you buy it. Two dishes of ice cream on two sides of a border may be entirely different articles.

DIFFERENCES in percentages of constituents in dairy products set by law in different States do not necessarily mean that the actual foods in the States must vary by the same hard and fast rules. Many foods sold are far above the legal standards set for them. Competition for a quality market will always have its effect. Other factors sometimes play their part too. In the District of Columbia, for instance, where consumers can read in a free monthly publication of the Health Department the exact results of surprise tests of the milk in all the dairies, the butterfat content ranges well over the 3.5 percent minimum set by law.

LEGAL MINIMUM standards set by statute or by other authority with power from the State Legislature are significant as measures of the standard of consumer protection in the State. We aim here to summarize the main points of these regulations as they compare with each other and with the Federal standards for dairy products in interstate commerce, administered by the Food and Drug Administration. In using the summary, it is important to remember that it covers only composition of the dairy products and does not include regulations regarding the important questions of health, hygiene, and purity.

BUTTERFAT gives the "richness" to milk—the yellow fat globules containing most of the milk's fuel calories, all of its Vitamins A and D, and the rich flavor we have come to associate with good milk. Though not as vital to consumers as cleanliness and purity, the butterfat content is generally accepted as the main criterion of value in milk. Only two States fail to set a minimum standard of butter-

fat content for milk sold within their borders. Thirteen States set a minimum of 3 percent. Twenty-seven raise the ante to $3\frac{1}{2}$ percent, three go on up to about $3\frac{1}{2}$ percent, and four have the highest standard— $3\frac{1}{2}$ percent. The improvement which $3\frac{1}{2}$ percent butterfat content makes over 3 percent cannot be estimated in terms of the minute difference in quantity between the two amounts of butterfat in a glass or even in a quart bottle. We get a better idea when we realize that it makes a proportional difference in richness amounting to an increase of one-sixth, which adds up to an important improvement in nutrition when considered in terms of a year's milk drinking.

OTHER SOLIDS in milk are perhaps even more valuable than the butterfat. The high-grade proteins for building and repairing our body tissues, the minerals, especially calcium for building bones, Vitamin G, which helps to keep up general vitality and to prevent pellagra, the digestible milk sugar which does other valuable jobs for the body besides making its contribution of fuel—all these nutrients are in the "milk-solids-not-fat." Some States set specific minimum standards for the nonfat solids in milk, ranging from 8 to $8\frac{1}{2}$ percent. Others set minimum standards only for total solids including butterfat, in a few cases as high as 12 percent, usually about $11\frac{1}{4}$ percent, sometimes $11\frac{1}{2}$ and occasionally only 11 percent. In one State, Maryland, the standard for total milk solids is $12\frac{1}{2}$ percent. Only six States are without standards covering either the solids-not-fat or "total milk solids" in milk.

FEDERAL definitions do not set a specific minimum standard of butterfat content in milk but simply describe it as the fresh lacteal secretion obtained by complete milking except at calving time.

SKIM MILK, though containing all of the solids of the whole milk except fat is seldom sold on the consumer market. It is usually returned to the farmer for animal feeding, kept at the dairy to make cottage cheese and buttermilk, or sold—in either fluid or powdered form—to such manufacturing plants as bakeries. Little powdered dry skim milk is available directly to consumers. Twenty-two States have regulations guarding against dilution of skim milk, specifying a percentage of

milk solids-not-fat ranging from 8 percent up to 9-9/10 percent. There is no Federal minimum standard for skim milk.

CREAM is pretty generally accepted to be 18 percent butterfat, in agreement with the Federal standard. One State jumps it to 22 percent, four set 20 percent, four drop below to 16 percent and four have no standard. Four States and the Federal rulings add that whipping cream must be 30 percent butterfat, while two other States call this cream "medium" and add standards above and below for "light" and "heavy". Heavy cream when specified varies from 34 percent to 40 percent butterfat.

BUTTER in interstate commerce must meet standards enacted by Congress in 1923. It must be 80 percent butterfat. Forty-two States reflect this standard in their own regulations, 16 of them adding the further stipulation that it must be not more than 16 percent water. Two States, Missouri and Wisconsin, go the Federal law one better with a standard of $82\frac{1}{2}$ percent butterfat, and five have no State regulation.

SWEETENED CONDENSED milk is subject to State standards varying from 7.7 percent to 8 percent butterfat and from $25\frac{1}{2}$ percent total solids to 28 percent. The 8 and 28 combination is set by Federal standard and since most condensed milk is manufactured for interstate commerce it is probable that this is the composition of the condensed milk consumers usually get.

UNSWEETENED EVAPORATED milk is also a well standardized product varying very little from factory to factory or State to State. Most States set the same legal minimum percentages as the Federal standard stipulates—7.8 percent fat and 25.5 percent total milk solids, with the sum of the two figures to total not less than 33.7. Though some have none at all, consumers can feel reasonably certain that a can of evaporated milk bought anywhere will measure at least as high as the Federal standard.

ICE CREAM has no Federal standard. Though each State has a standard for minimum butterfat ranging from 8 to 14 percent and some have standards varying from 18 to 20 percent for other milk solids in plain ice cream, even the

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YOUNG CONSUMERS

YOUNG VISITORS to the Bureau of Home Economics in the Department of Agriculture are as surprised as they are interested when they reach the Nutrition Studies corridor and suddenly walk into rooms full of cages of animals.

SMALL LABORATORY animals have done a tremendous job in helping scientific research workers to learn what makes human beings sick and what can cure them. Guinea pigs are traditional research helpers, and they are still working at it. But almost every breed of animal sometimes serves its turn for science. Experiments originally worked on one animal are checked on others. When a point is proved on hens, and works the same way on rats, rabbits, dogs, pigs, and even on monkeys—the closest relative of humans—scientists are more willing to call the point proved.

WHITE "albino" rats are the best all-round laboratory animal. They live their lives quickly, but not too quickly for dependable observations. They are vulnerable to ailments from dietary deficiencies in corresponding degrees to those in which humans suffer from them. And they are very polite about eating anything that's set before them, even if it means subsisting on an exclusive diet of green peppers. This makes it possible for research workers to test almost every food under exactly the same conditions.

ANIMALS in the Nutrition Studies laboratory are concentrating on showing what hap-

pens when certain vitamins are missing from the diet and finding out exactly how much of which foods will fill the vitamin lacks.

VITAMINS are strange things—not so much food materials themselves as stimulators to help the body make use of other substances. They were first discovered by their absence—and are still more noticeable to most of us in their absence because of the troubles we reap—and originally acquired names to match the diseases that came when they were missing in the diet. Vitamin C, for instance is the "anti-scorbutic" or scurvy-preventing vitamin, and the sunshine Vitamin D is called "anti-rachitic" because it stands off rickets.

VITAMIN A was once called the "anti-infection" vitamin, because without it people develop infections in the eyes, sinuses, ears, glands of the mouth and throat and in some instances other parts of the body, too. Now the name is outmoded because research has shown that all vitamins help to raise the body's resistance to infection, and that Vitamin A also has other jobs to do.

TESTING for Vitamin A in foods is carried on in much the same way as tests for other vitamins. The laboratories must be perfectly controlled without such outside causes entering into the experiment as noise, cold, and germs. The food and the animals must be accurately weighed and perfect records kept of every detail of the experiment. Young animals from families

of the same strain with exactly the same care and environment and history are chosen.

ALL the animals receive at the beginning of a typical Vitamin A test, exactly the same "basal" diet, which is complete in everything the animals need except Vitamin A. This period of equal diet has to go on longer in the case of Vitamin A because—fortunately for us—this vitamin can be stored up in the body and used long after we have stopped getting it in our food. So the rats are fed the basal diet all alike until they have used up all their stored-up Vitamin A. The nutritionists can tell when this has happened because the rats stop gaining weight, or they show the first signs of eye trouble, or both; there are faint signs that their muscles are getting flabby; and their fur is not sleek and well-groomed any more. There the test begins.

ONE of each family is put in the group that must continue on the vitamin-lacking diet, the "negative control" group. The others are divided up into groups receiving the same diet plus different graded amounts of the Vitamin A food to be tested. If the test is carried on correctly with enough animals to make individual variabilities unimportant, then the advantages the animals show over their "negative controls" can be credited to Vitamin A. By the amounts of the different foods necessary to produce the same results in the animals, the researchers arrive at their estimates of the comparative potency of the foods in Vitamin A.

ONE interesting Vitamin A test was done on rats 4 weeks old which had the same background except for their diet. They had all been fed alike except that 37 of them had had more milk than the other 38. For a month they were deprived of their milk and had no Vitamin A, until they had used up all their reserves. Then for 8 weeks more they were all fed alike on a diet with a limited Vitamin A allowance. At the end of the test period, examinations showed that three-quarters of the animals that had been brought up in their early days on the smaller amount of milk had infections, and only one-quarter of those that had had more milk had developed infections from the deprivation experience.

OTHER TESTS showed that rats getting "small" rather than "moderately liberal" amounts

of Vitamin A grew up nearly to normal adult size but did not have any young and did not live long. The ones that got the moderately liberal allowance of Vitamin A grew up to fully average adult size, had young, brought them up comfortably and lived more than twice as long as those on a diet which was equally good in everything but Vitamin A.

OTHER RESEARCHES brought the conclusion that rats could get enough Vitamin A to present a normal picture of average health, to grow, but not enough to become parents and apparently too little to keep them from breaking down in health at what should be the prime of life. One researcher found that rats which grew normally and seemed perfectly all right suddenly developed lung disease at the age which corresponds in a rat's life cycle to the period when statistics show young men and women to be most likely to develop tuberculosis. Nutrition experts have suggested that among the diseases that could be traced directly to lack of Vitamin A in the diet, tuberculosis occupies a major spot.

SO FAR, the official pronouncement of the experts in the nutrition laboratories of the Bureau of Home Economics is that "Vitamin A stimulates growth and is necessary for well-being at all ages."

RICHEST in Vitamin A of all foods yet tested is fish liver oil, which usually goes on the dietary of children mainly for its rich supply of the rickets-preventing Vitamin D. Liver is rich in Vitamin A, too, and so is egg yolk. Butter and cheese are also high on the list. It is only the cream part of milk that gives it its high rating for Vitamin A, but milk deserves the rating because if people get enough to give them their supply of the other essentials milk gives, they are likely to get a high total of Vitamin A.

GREEN and yellow colors seem to carry special Vitamin A significance. Yellow corn is better than white corn as a source of Vitamin A, and sweetpotatoes than white potatoes, carrots than cauliflower. Thin green leaves are headliners for Vitamin A, as well as for Vitamins B, C, and G. Experiments in the Bureau of Home Economics have proved that the outside green

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PROSPECTS for larger supplies of food products have been growing with the months. Bad winter weather has been followed with more favorable weather. Mild temperature during March pushed ahead spring farming operations in the southern half of the country. On April 1 farmers reported that they expected to plant more this year than in any of the past 3 years.

SOIL conditions on April 1 were favorable. The area seriously short of moisture appeared small in comparison with the vast areas deficient in 1934 and 1935. In certain areas excessive moisture in March delayed planting and progress of farm work but damage has not been serious. One of the main effects will be later marketing of certain truck crops.



RETAIL food costs continued downward from March 10 to 24 as supplies showed seasonal increases. For the second time in succession since July 15, 1935, the index of retail costs was lower than food costs for a corresponding period of a previous year. On March 24, costs were about 1 percent below the general level on March 26, 1935, and March 10, 1936.

LOWER food costs during March resulted mainly from a substantial reduction in farm prices. Farm prices usually decline at this time of the year. However, the drop in prices received by farmers from February 15 to March 15 was the largest monthly decline experienced since February 1933. On March 15, the index was below March 1935 and at its lowest level since July 1935.

FARMERS received lower prices on March 15 for all foods except fruits and potatoes. More than seasonal declines occurred in dairy products and truck crops. While prices paid by farmers also decreased, the amount of the decline was not sufficient to offset the drop in prices received.

INDEX of retail food costs on March 24, as reported by the Bureau of Labor Statistics, was 79 percent of the 1923-25 average. This compared with the March 15, 1933, index of 59.8 and 101.4 percent on March 15, 1929.

ALL FOOD groups except fruits and vegetables were lower in cost or remained unchanged during the 2-week period between March 10 and

CHANGES IN AVERAGE RETAIL PRICES IN THE UNITED STATES

Kind of food	Mar. 10, 1936	Mar. 24, 1936	Change in two weeks
Dairy products:	¢	¢	%
Milk, qt.....	11.8	11.8*	—
Cheese, lb.....	27.1	27.0	-0.4
Butter, lb.....	40.1	38.7	-3.5
Beef:			
Round steak, lb.....	32.9	32.9	—
Rib roast, lb.....	29.4	29.2	-0.7
Chuck roast, lb.....	22.5	22.4	-0.4
Pork:			
Chops, lb.....	32.1	33.1	+3.1
Lard, lb.....	16.2	16.1	-0.6
Whole smoked ham, lb.....	30.8	30.8	—
Lamb:			
Leg of lamb, lb.....	27.7	28.6	+3.2
Breast lamb, lb.....	12.8	12.7	-0.8
Square chuck, lb.....	21.5	21.6	+0.5
Poultry and eggs:			
Hens, lb.....	32.6	32.4	-0.6
Eggs, doz.....	34.8	31.0	-10.9
Bread:			
White, lb.....	8.3	8.2	-1.2
Rye, lb.....	9.1	9.1	—
Whole wheat, lb.....	9.3	9.3	—
*3.5-5.0 percent butterfat		(continued)	

Your Food

24. Eggs and dairy products showed the largest decline. While meat costs as a whole remained unchanged, fresh pork prices were higher, and beef prices were lower. Fruit and vegetable costs increased mainly as a result of higher potato prices.



EGG production per hen during March showed the largest March increase since records were first started 12 years ago. Cost of feeds has been unusually low compared with egg prices, and this coupled with better weather has encouraged egg production. Further seasonal increases in egg production are to be expected during April and May.

CHANGES IN AVERAGE RETAIL PRICES IN THE UNITED STATES

Kind of food	Mar. 10, 1936	Mar. 24, 1936	Change in two weeks
Cereal products:	¢	¢	%
Flour, lb.....	4.8	4.8	—
Macaroni, lb.....	14.8	14.8	—
Wheat cereal..... (28-oz. package)	24.0	24.0	—
Vegetables—canned:			
Corn, #2 can.....	11.3	11.3	—
Peas, #2 can.....	15.9	15.9	—
Tomatoes, #2 can.....	9.3	9.3	—
Vegetables, fresh:			
Potatoes, lb.....	2.4	2.5	+4.2
Onions, lb.....	4.1	3.9	-4.9
Cabbage, lb.....	3.8	3.9	+2.6
Vegetables—fresh:			
Lettuce, head.....	7.9	7.9	—
Spinach, lb.....	6.9	7.1	+2.9
Carrots, bunch.....	5.6	5.5	-1.8
Fruit—canned:			
Peaches, #2½ can.....	17.9	17.8	-0.6
Pears, #2½ can.....	22.3	22.2	-0.4
Pineapple, #2½ can.....	22.3	22.3	—
Fruit—fresh:			
Apples, lb.....	5.4	5.4	—
Bananas, lb.....	6.4	6.4	—
Oranges, doz.....	30.9	29.7	-3.9

and 24. Egg prices usually fall off at this time of the year. The rate of decrease in these 2 weeks was accentuated by the fact that a large part of the receipts in early March showed quality deterioration and had to be sold immediately. This made it inadvisable to store eggs even though receipts were considerably in excess of current requirements, while storage stocks were unusually small. Larger supplies also caused wholesale prices to continue uninterruptedly their downward trend. However, during the last 2 weeks of March and the first week in April, weekly price changes were fairly small.



BUTTER production during March showed weekly increases with many manufacturers reporting production in excess of corresponding weeks in 1935. A feature of the market was the comparatively light supply of medium and low grades of butter. This resulted in a narrow range between wholesale prices of various grades.

MILK AND BUTTER production seems likely to continue above last year's low level for some months. A record March increase in milk production per cow, following an unusually large seasonal increase in February, carried milk production per cow on April 1 to its highest April level since 1932. Farmers have been feeding cows more heavily because feed costs have been unusually low in comparison with farm prices of dairy products. There is increasing evidence that more than the usual number of cows are to freshen this spring. Production seems likely to continue fairly heavy through the remainder of the summer, barring unfavorable pasture conditions or an unexpected heavy decline in dairy product prices.

BUTTER PRICES to consumers declined an average of 1.4 cents a pound from March 10 to 24. The average of retail milk prices remained unchanged, although all dairies in Seattle reduced prices 1 cent a quart.

MEAT SUPPLIES are apparently on the upgrade. More extensive hog slaughter is expected to occur during May and June as pigs from the large 1935 fall crop are marketed. Hogs marketed this year have been heavier than last year. Low corn prices, as compared with hog prices, have encouraged heavier feeding of animals.

Bill

RECEIPTS of eggs at four large markets during March were about the same as last year. This compares favorably with February when receipts were about 60,000 cases below the previous year. Part of the March receipts were shipments delayed from the previous month, rather than the result of current production. While March showed a record increase, production in the Middle West had not fully recovered from the effects of the cold spell in February. Production on the Pacific Coast was not seriously affected by cold weather this year.

INCREASING supplies of eggs resulted in a seasonal decline of 3.8 cents per dozen in the average price to consumers between March 10



HOG SUPPLIES during March were larger than in February of this year and March of last year. Hog supplies in March ordinarily are smaller than in February. The seasonal decline did not occur this year because February slaughter was unusually low, the smallest for any February since 1903.

FEDERALLY inspected hog slaughter in March totaled 2,617,126 head. This was 21 percent above March 1935, but it was still about the same percentage below the March 5-year average. Weight of hogs slaughtered averaged about 16 pounds heavier than last year, mainly because of the relatively low cost of feed.

INCREASES in retail prices of fresh pork from March 10 to 24 offset price decreases which occurred during the previous 2 weeks. Loin roast and pork chops advanced about 1 cent a pound. As a result their prices on March 24 were back to the level of February 25. Cured pork products, however, continued their downward trend during the period and lard also showed a minor decline. Compared with the prices of 6 months earlier, fresh pork cuts were down about 6 cents a pound and cured products were down 3 to 5 cents a pound.

TREND of hog prices is expected to be downward through June as marketing of pigs from the fall crop increases.

SUPPLIES of cattle and calves during March showed their usual seasonal increase over February. Federally inspected slaughter of calves during March was the second largest on record for this month. Cattle slaughter was 14 percent above the March 5-year average and 3 percent above March last year. The bulk of steers marketed graded medium and good, and the quality was slightly better than last month.

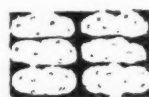


BEEF PRICES to consumers, with the exception of sirloin steak, declined moderately from March 10 to 24. Veal outlets dropped about 1 cent a pound. Wholesale beef steer prices generally moved downward slowly during March, but in the first week in April prices dropped sharply.

LAMB SUPPLIES in March were slightly larger than in February. However, the cost of leg of lamb to consumers advanced about 1 cent a pound during the 2-week period. Other lamb cuts were practically unchanged in price. The wholesale price of live and dressed lambs has been advancing slowly since the first of March. Lamb prices during the coming months will depend largely upon the size of the old lamb crop compared with the marketings of spring lambs.

SPRING lambs are starting to arrive at markets in small quantities. Earliest shipments appeared in Kansas City, and Chicago recently received its first carlots the first week in April. Heavy movement of spring lambs is not expected until early in May.

WHITE BREAD prices reached their lowest level since September 1935 when they declined to 8.2 cents per pound on March 24. The small decline from 8.3 cents on March 10 was not the result of a substantial price reduction in any one city, but to a series of small changes in scattered cities over a period of several weeks. From March 10 to 24, nine cities reported price decreases, while three reported increases, the amounts in all but one case being 0.1 cent. The United States average price of bread is back to the level prevailing prior to the price increase last September, but prices in some cities have not exhibited similar declines.



POTATO supplies were fairly light during March, and no substantial increases are expected during the next few months. As pointed out in previous issues of the GUIDE, stocks of old potatoes on January 1 were relatively small. This factor might have been offset by larger supplies of new potatoes. However, bad weather in the South curtailed planting and delayed harvesting of the new crop. Rain washed out a large part of the Carolina potato crop and caused decay of Florida stocks. The new crop in the 11 early producing States is expected to be somewhat below last year.

SUPPLIES of new potatoes came to market irregularly during the month. In the second and third week of March shipments dropped sharply. Then in the last week of the month

they almost doubled and reached their peak of the year with supplies arriving from Texas and Florida. This increase in new potato shipments was more than offset by a 1,700-car decline in old potato shipments during the same week.

LIGHT potato supplies resulted in higher wholesale and retail prices. From March 10 to 24, retail prices increased from 2.4 to 2.5 cents a pound. Prices were up in 35 cities covered in the Bureau of Labor Statistics report. Wholesale prices of new and old potatoes reached their peak of the year during the last week in March. While wholesale prices declined during the first week in April, they were still relatively high. Growers benefited from the price increase, receiving 72.3 cents a bushel on March 15 compared with 68.9 cents on February 15.



MOST green produce supplies, with the exception of snap beans and peas, were larger during the last half of March. Carlot shipments were higher than March last year, due mainly to a greater output of Texas green produce. New onions made their first appearance on the market during the last week in March. Asparagus is arriving at markets earlier than last year and prices are declining as volume has increased. Lettuce supplies from Arizona showed substantial increases during the last half of March.

SPINACH and cabbage retail prices showed minor increases from March 10 to 24. Snap beans increased 2 cents a pound, due to the fact that much of the Florida crop was spoiled by heavy rains. Price increases in the case of spinach and cabbage have been due to a slight recovery from the extremely low prices reached on March 10. The large size of the green produce supplies marketed during March caused the farm price of truck crops to decline from 117 to 77 percent of the 1910-14 average price between February 15 and March 15.



LEMON prices increased moderately, and orange prices dropped more than 1 cent a dozen during the 2-week period. There was a drop in orange prices, contrary to the usual seasonal movement at this time of the year. California valencia oranges should be coming to market during the next few months and shippers are anxious to clear their stock of navel oranges.

TOMATOES in southern Florida were seriously affected by heavy rain. Production in Florida is expected to be about only one-third of the 1,824,000-bushel crop in 1935. About one-half of this year's crop had been shipped to market by the end of March. Tomato prices should continue steady or higher as a result of short supplies.

STRAWBERRIES are now arriving at markets in larger quantities with Louisiana supplies augmenting those from Florida. The quality of Louisiana berries is good for early arrivals. Shipments of strawberries during the first week in April were about double those of previous weeks.

CANTALOUPE supplies from the early States are expected to be smaller this year. The acreage planted to cantaloupes, including honeyball, honeydew, casaba, and Persian melons estimated for the early States is 16 percent smaller than the 1935 acreage. This is the smallest early acreage reported since 1921. It is possible that this decline in acreage may be offset by increased acreage in the later producing States. Weather conditions in California have been favorable for cantaloupes, although cold weather slowed up growth of melons during the first week in April. Cantaloupes from the early crop should arrive in market in volume during May.

SMALLER watermelon production in the early States also appears likely this year. Acreage in Florida and Imperial Valley is estimated at about 10 percent below last year. Imperial Valley acreage is in excess of last year but the acreage in Florida is 22 percent below 1935. The Florida crop is in good condition but in general it will be about two weeks later than last year. The first plantings in some counties were killed by frost. First melons should move to market around June 1.

FOOD PRICES

in the 64 cities of the country which heretofore have been published in each issue of the CONSUMERS' GUIDE from the records of the Bureau of Labor Statistics will be omitted hereafter. Readers who wish to continue to receive these prices may do so, without charge, by addressing their requests directly to that Bureau in Washington, D. C.

SALUTE TO THE "WONDER BEAN"

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is doubtful if 50,000 farmers had ever grown as much as an acre in a separate crop. In 1935 more than 600,000 farmers were in the business of producing this bean. Less than 500,000 acres were grown in the United States prior to 1917. Last year close to 5½ million acres were planted, encouraged in part by the drought and in part by AAA. Soybeans on about half of these acres were harvested for beans or used for grazing; on the other half they were used for hay or silage, or were turned under for soil improvement. Production of the beans in 1925 was only 5 million bushels. The 1935 crop was more than 40 million bushels.

INCREASES in production are coming along at such a pace that science has had a new job laid at its doors—the job of helping industry and consumers to keep pace with the output of soybeans. Last month the United States Department of Agriculture and 12 North-Central States opened a cooperative soybean industrial research laboratory at Urbana, Ill., to find new industrial uses and improve present known uses, to test for the best varieties for industrial uses. At present some 35 soybean mills and a number of cottonseed oil mills are crushing soybeans for oil and oil meal; 20 concerns are manufacturing soybean food products; 15 mills are making soybean flour, and more than 50 factories are turning out various industrial products.

RECIPES for curious consumers who are unfamiliar with this product have been published by the Bureau of Home Economics of the Department of Agriculture in a mimeographed bulletin, "Soybeans and Soybean Products for Table Use", which will be sent free to anyone addressing that Bureau. Another good source of general information is "Soybean Utilization", Farmers' Bulletin No. 1617, which can be bought for 5 cents from the Superintendent of Documents, Washington, D. C.

COLOR FOR SALE

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MORE and more manufacturers each year are realizing the commercial value of Government certification. Last year more than 1,500 batches of food colors came to the Department for routine examination to determine their com-

pliance with the requirements of the law. More coal-tar color was certified than ever before reported.

CHIEF uses for artificial color are soft drinks, butter and cheese, confectionery, and foods like vanilla extract and imitation maraschino cherries.

SOFT DRINKS sold in this country add up to a total of 11 billion bottles in a year, and children drink most of them. On the crown cap of the bottle you should be able to find not only the information as to their artificial coloring but also whether they contain benzoate of soda, sulphur dioxide, imitation or true fruit flavors, or caffeine.

CHERRIES which most consumers think of as "maraschino" are seldom the real maraschino: naturally flavored cherries of the marasca type packed in alcoholic cordial. The bottles we usually buy hold cherries that were originally white cherries preserved in brine, then treated with sulphurous acid to bleach and preserve them, then after as much as possible of the brine and sulphurous acid is removed, dyed with artificial red color and artificially flavored with benzaldehyde or other flavors and packed in sugar syrup. That is why the label on the bottle does not say "Maraschino Cherries", and does say that they are artificially flavored, artificially colored, and preserved with benzoate of soda.

EASTER EGG dyes are now as safe as other colors used on food, since the campaign 2 years ago when certain poisonous ones were taken off the market. Now most of the products on sale are harmless, manufactured from colors certified by the Department of Agriculture.

HOME decoration of candies and icings and all the other foods calling for color, can be done with safety if consumers watch for the words "Harmless Food Color" on the label of the package of food color. The capsules of color sold with margarine may be used safely since they are commonly either a harmless vegetable yellow or one of the permitted coal-tar dyes.

CONSUMERS interested in more technical information may write to the United States Department of Agriculture for the free bulletin "Certification of Coal-Tar Food Colors."

HOW DO YOUR DAIRY PRODUCTS COMPARE?

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highest of these has little meaning by itself since the process of whipping and freezing can dilute the finished product with air. The percentage by which the volume of ice cream is increased with air is called overrun, and two States, Wisconsin and Illinois, limit it to 100 percent, preventing ice cream from being sold when it is more than one-half air.

ANOTHER way to regulate this point is to set a minimum weight per gallon of ice cream. The Government in buying for its institutions calls for ice cream weighing $4\frac{1}{4}$ pounds per gallon, and three States, Pennsylvania, Kansas, and Georgia set this as a minimum weight for plain ice cream. Four other States set $4\frac{1}{2}$ pounds, three set $4\frac{3}{4}$ pounds per gallon. Three use another method of regulation, stipulating that the food solids in the ice cream must weigh 1.6 pounds per gallon which results in about the same "density" of ice cream. One raises this standard up to 1.8 pounds of food solids per gallon. The other 34 States do not regulate the density of the ice cream sold.

FRUIT and nut ice cream, and sometimes chocolate, are subject to separate regulations which usually lower the minimum butterfat content by two points giving a range of 6 to 12 percent butterfat. In those States where there are standards for the other milk solids, they vary from 14 to 20 percent. States which have rulings for overrun, weight per gallon, or weight of milk solids per gallon in plain ice cream apply the same rulings to fruit and nut ice cream.

CHEESE, when not further described, is taken to mean our most common variety, the American Cheddar cheese. Only six States are without regulations governing the minimum butterfat content of whole milk cheese. Eighteen States adopt the Federal standard which provides that "50 percent of the water-free substances" shall be butterfat, while not more than 39 percent of the cheese shall be water. Most of the others use only the first half of the definition, leaving out reference to maximum water content. Some States add individual standards to cover other varieties of cheese than Cheddar.

SKIM MILK CHEESE receives specific attention in few States. Where it does, the approach to the problem is various. One State will apply the name to all cheese made from milk from which any cream has been removed; another specifies all cheese whose butterfat is "less than 30 percent of water-free substance"; another "less than 12 percent of water-free substance"; others define skim milk cheese flatly as less than 30 percent butterfat; another less than $16\frac{1}{2}$ percent butterfat; another less than 8 percent. Several States make places in their standards for cheese coming between whole milk and skim milk classifications.

STATES range from one which has no general law applying to dairy products, to those with scientific, modern control, designed to give complete protection for consumers. Consumers who wish to check on the rules under which they buy their own dairy products may write to their local health department or to their State Department of Agriculture.

YOUNG CONSUMERS

[Concluded from page 17]

leaves of a head of Iceberg lettuce are forty times as rich as the inner whiter leaves. Parsley is absolute tops for Vitamin A units, with such greens as kale and spinach and dandelion greens and turnip tops and watercress and collards and the others following along as "excellent" sources. Among fruits, apricots and prunes and yellow peaches are the best sources of Vitamin A.

ADVICE from nutritionists to those who want to build for future health is to stock up on the important Vitamin A when you can. This is one vitamin you can store against a rainy day. Eat enough of the vitamin-rich foods to build up a surplus of Vitamin A. The more you get now the longer your supply will last you if emergencies prevent your getting a good diet at some future time. The diet of people during their youth is every day adding its influence on events of their later life.

NEXT ISSUE, this page will continue the story of what happens in the laboratories where small animals lead the search for facts about the vitamins that help us keep up our health and liveliness.

Our Point of View

THE CONSUMERS' GUIDE believes that consumption is the end and purpose of production.

To that end the CONSUMERS' GUIDE emphasizes the consumer's right to full and correct information on prices, quality of commodities, and on costs and efficiency of distribution. It aims to aid consumers in making wise and economical purchases by reporting changes in prices and costs of food and farm commodities. It relates these changes to developments in the agricultural and general programs of national recovery. It reports on cooperative efforts which are being made by individuals and groups of consumers to obtain the greatest possible value for their expenditures.

The producer of raw materials—the farmer—is dependent upon the consuming power of the people. Likewise, the consumer depends upon the sustained producing power of agriculture. The common interests of consumers and of agriculture far outweigh diversity of interests.

While the CONSUMERS' GUIDE makes public official data of the Departments of Agriculture, Labor, and Commerce, the point of view expressed in its pages does not necessarily reflect official policy but is a presentation of governmental and nongovernmental measures looking toward the advancement of consumers' interests.

Issued by the CONSUMERS' COUNSEL of the
AGRICULTURAL ADJUSTMENT ADMINISTRATION
in cooperation with the
BUREAU OF AGRICULTURAL ECONOMICS
BUREAU OF HOME ECONOMICS
BUREAU OF LABOR STATISTICS
Washington, D. C.

Vol. III, No. 8

April 20, 1936

